UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,974	09/30/2003	Yen-Fu Chen	AUS920030588US1	4970

	EXAMINER
45371 7590 04/06/2007 IBM CORPORATION (RUS) c/o Rudolf O Siegesmund Gordon & Rees, LLp 2100 Ross Avenue Suite 2600 DALLAS, TX 75201	TIMBLIN, ROBERT M

ART UNIT	PAPER NUMBER
2167	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/674,974	CHEN ET AL.
	Examiner	Art Unit
	Robert M. Timblin	2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11,13-20,22-29 and 32-38* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-11,13-20,22-29 and 32-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

This office action is responsive to application 10/67,4974 filed 6/30/2006 and Applicant's

amendments/remarks filed 11/20/2006.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 12/20/2006 has been entered.

Claim Objections

Claim 29 is objected to because of the following informalities: in the "responsive to"

step "that" is repeated twice. Applicant is asked to remove the repeated word. Appropriate

correction is required.

Claims 3, 13, 20, 22, 29, and 32 objected to because of the following informalities:

Confusion and·inconsistency is gained from Applicant's determination of the database and

hashtable not being identical and the result of that determination. Specifically, for example in

claim 1, it is stated "...responsive to a determination that the database and the hashtable are not

identical, creating a new XML Schema..." Further in the claim, it reads, "...a new XML Schema

is created only when a determination is made that the database and the hashtable are not

identical. In another claim (e.g. claim 29) in the step starting "responsive to a determination…"a

new XML Schema is created upon determining that the database and the hashtable are identical.

In the last step of claim 29, a new XML Schema is created only when a determination is made

that the database and the hashtable are *not* identical.

The Examiner asks the Applicant to clearly indicate what is done when a determination is

made that a database and the hashtable are or are not identical.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while

being enabling for checking the validity of a data (e.g. in claim 10), does not reasonably provide

enablement for validating a plurality of data *in* (emphasis added) the database. The specification

does not enable any person skilled in the art to which it pertains, or with which it is most nearly

connected, to use the invention commensurate in scope with these claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10 and 29 recites the limitation "the verified data" in the "adding" step. There is

insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1, 3-11, 13-20, 22-29, and 32-38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ng et al. (Ng hereinafter) (US 6,609,133 B2) in view of Srivastava et al.

(Srivastava hereinafter) (US 2002/0120685 A1)

With respect to claim 1, Ng teaches a method for validating data in a backend

driven environment, the method comprising:

creating an XML Schema for a database (col. 4 line 1-7 and line 35-42, col. 5 line

45-50, and figure 3);

copying the database to a hash table (col. 5 line 60-67, col. 6 line 19-27, and col.

11 line 10-58);

determining if the database and the hashtable are not identical (col. 7 line 28-41,

col. 8 line 10-27, and figure 10); and

responsive to a determination that that database and the hashtable are identical,

creating a new XML Schema (col. 8 line 29-50);

wherein the XML Schema contains a plurality of rules for validating (col. 5 line

20-33) a plurality of data in the database (col. 9 line 8-28, figure 12, col. 4 line 36-42, and

col. 5 line 45-50);

wherein the step of creating a new XML Schema includes automatically updating the plurality of rules (col. 4 line 29-51); and

wherein a new XML Schema is created only when a determination is made that the database and the hashtable are not identical (col. 4 line 29-57, col. 8 line 29-50 and figures 11A-B).

Ng fails to expressly teach designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table.

Srivastava however, teaches designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table (0068-0069) for specifying when to perform an update check.

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Srivastava would have provided Ng's system with ensuring system integrity. Further, Srivastava's teaching would have Given Ng a query interval for checking updates for the benefit of efficiently determining when a data source has been modified (as needed in Ng at col. 3 line 35-39 and53-56).

Claim 2. (Cancelled).

With respect to claim 3, Ng fails to teach resetting the query interval.

Srivastava, however teaches resetting the query interval (0068). The motivation for combination

can be equally applied from claim 1. The rejection of claim 3 equally applies well to claim 22

and 32.

With respect to claim 4, Ng teaches the method of claim 1 wherein the additional steps

further comprise: deleting the hashtable and saving the database as a new hashtable (col. 8 line

42-58).

With respect to claim 5, Ng teaches the method of claim 1 wherein the additional steps

further comprise: storing the new XML Schema in a web server's virtual root (col. 4 line 53-col.

5 line 5 and figure 1).

With respect to claim 6, Ng teaches 6. The method of claim 1 wherein a limited number

of tables from the database are copied to the hashtable (col. 6 line 1-28); and

wherein upon the occurrence of a query interval, the database tables are compared to the

tables in the hashtable (col. 8 line 10-28).

With respect to claim 7, Ng teaches the method of claim 1 wherein a database metadata is

copied to the hashtable (col. 5 line 60-67); and

wherein upon the occurrence of a query interval, the database metadata is compared to

the metadata in the hashtable (col. 8 line 10-28).

With respect to claim 8, Ng fails to teach notifying a registered party of an update to the XML schema.

Srivastava, however, teaches notifying a registered party of an update to the XML Schema (0068 and 0447).

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the notification method of Srivastava would have given Ng a way to notifying users of change for further providing an indication of modification which is needed by Ng in col. 3 line 53-55. This rejection equally applies well to claim 18, 27, and 37.

With respect to claim 9, Ng fails to teach using a database trigger to indicate a change in the database.

Srivastava, however, teaches using a database trigger to indicate a change in the database (0448) for executing services upon the occurrence of events.

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teaching of Srivastava would have given Ng a further efficient way to detect modifications. This rejection equally applies well to claim 19, 28, and 38).

With respect to claim 10 Ng teaches a first method for validating proposed additions to a database comprising:

accessing an XML Schema stored in a web server's virtual root (col. 4 line 53-col. 5 line

5 and figure 1);

wherein the XML Schema is created by a second method comprising:

creating an XML schema for a database (col. 4 line 1-7 and line 35-42, col. 5 line 45-50,

and figure 3);

copying the database to a hash table (col. 5 line 60-67, col. 6 line 19-27, and col. 11 line

10-58);

determining if the database and the hashtable are not identical (col. 7 line 28-41, col. 8

line 10-27, and figure 10); and

responsive to a determination that that database and the hashtable are identical, creating a

new XML Schema (col. 8 line 29-50).

Ng does not expressly teach checking the validity of a data using the XML Schema ,

submitting the data to a database, validating the data, and adding the verified data to the

database.

Srivastava however teaches checking the validity of a data using the XML Schema ,

submitting the data to a database, validating the data, and adding the verified data to the database

(0010 and 0083) for accepting information.

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of

ordinary skill in the data processing art at the time of the present invention to combine the

teachings of the cited references because Srivastava would have given Ng a validation method to

check information for acceptance. Ng specifies this need in col. 5 line 28-33 wherein data of a

certain type or value can be accepted. Thus system integrity would be further ensured in Ng's invention from the teachings of Srivastava.

Ng fails to expressly teach designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table.

Srivastava however, teaches designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table (0068-0069) for specifying when to perform an update check.

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Srivastava would have provided Ng's system with ensuring system integrity. Further, Srivastava's teaching would have Given Ng a query interval for checking updates for the benefit of efficiently determining when a data source has been modified (as needed in Ng at col. 3 line 35-39 and 53-56).

With respect to claim 11 Ng teaches the first method of claim 10 further comprising: creating an XML Schema for a database (col. 4 line 1-7 and line 35-42, col. 5 line 45-50, and figure 3).

Claim 12. (Cancelled).

With respect to claim 13, Srivastava teaches the first method of claim 10 wherein the second method further comprises: responsive to a determination that the database and the

hashtable are identical, resetting the query interval and repeating the steps in claim 10. The

motivation for combination can equally apply from the rejection of claim 10.

With respect to claim 14, Ng teaches the method of claim 10 wherein the second method

further comprises: deleting the hashtable and saving the database as a new hashtable (col. 8 line

42-58).

With respect to claim 15, Ng teaches the method of claim 10 wherein the second method

further comprises: storing the new XML Schema in a web server's virtual root (col. 4 line 53-col.

5 line 5 and figure 1).

With respect to claim 16, Ng teaches the first method of claim 10 wherein the second

method further comprises: wherein a limited number of tables from the database are copied to

the hashtable; and wherein upon the occurrence of a query interval, the database tables are

compared to the tables in the hashtable (col. 6 line 1-28).

With respect to claim 17, Ng teaches the first method of claim 10 wherein the second

method further comprises: wherein a database metadata is copied to the hashtable (col. 5 line 60-

67); and

wherein upon the occurrence of a query interval, the database metadata is compared to

the metadata in the hashtable (col. 8 line 10-28).

With respect to claim 20, Ng teaches a program product operable on a computer, the program product comprising:

a computer-usable medium (figure 1);

wherein the computer usable medium comprises instructions contained in the program product comprising:

instructions for creating an XML Schema for a database (col. 4 line 1-7 and line 35-42, col. 5 line 45-50, and figure 3);

instructions for determining if the database and the hashtable are identical (col. 7 line 28-41, col. 8 line 10-27, and figure 10); and

responsive to a determination that that database and the hashtable are identical (col. 7 line 28-41, col. 8 line 10-27, and figure 10), instructions for performing additional steps comprising: instructions for creating a new XML Schema (col. 8 line 29-50);

wherein the instructions for creating a new XML Schema cause the computer to automatically update the plurality of rules (col. 4 line 29-51); and

wherein the new XML Schema is created only when a determination is made that the database and the hashtable are not identical (col. 4 line 29-57, col. 8 line 29-50 and figures 11A-B).

Ng fails to expressly teach designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table.

Srivastava however, teaches designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table (0068-0069) for specifying when to perform an update check.

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Srivastava would have provided Ng's system with ensuring system integrity. Further, Srivastava's teaching would have Given Ng a query interval for checking updates for the benefit of efficiently determining when a data source has been modified (as needed in Ng at col. 3 line 35-39 and53-56).

Claim 21. (Cancelled).

With respect to claim 23, Ng teaches the program product of claim 20 wherein the additional steps further comprise: instructions for deleting the hashtable and saving the database as a new hashtable (col. 8 line 42-58).

With respect to claim 24, Ng teaches the program product of claim 20 wherein the additional steps further comprise: instructions for storing the new XML Schema in a web server's virtual root (col. 4 line 53-col. 5 line 5 and figure 1).

With respect to claim 25, Ng teaches the program product of claim 20 wherein a limited number of tables from the database are copied to the hashtable (col. 6 line 1-28); and

wherein upon the occurrence of a query interval, the database tables are compared to the tables in the hashtable (col. 8 line 10-28).

With respect to claim 26, Ng teaches the program product of claim 20 wherein a database metadata is copied to the hashtable (col. 5 line 60-67); and

wherein upon the occurrence of a query interval, the database metadata is compared to the metadata in the hashtable (col. 8 line 10-28).

With respect to claim 29, Ng teaches a first program product operable on a computer, the program product comprising:

a computer-usable medium (figure 1);

wherein the computer usable medium comprises instructions contained in the program product comprising:

instructions for accessing an XML Schema stored in a web server's virtual root (col. 4 line 53-col. 5 line 5 and figure 1);

wherein the XML Schema is created by a second program product comprising:

instructions for determining if the database and the hashtable are identical (col. 7 line 28-41, col. 8 line 10-27, and figure 10);

and responsive to a determination that that database and the hashtable are identical (col. 8 line 29-50), instructions for creating a new XML Schema (col. 8 line 29-50):

wherein the step of creating a new XML Schema includes automatically updating the plurality of rules (col. 4 line 29-51); and

wherein a new XML Schema is created only when a determination is made that the database and the hashtable are not identical (col. 4 line 29-57, col. 8 line 29-50 and figures 11A-B).

Ng does not expressly teach checking the validity of a data using the XML Schema, submitting the data to a database, validating the data, and adding the verified data to the database.

Srivastava however teaches checking the validity of a data using the XML Schema, submitting the data to a database, validating the data, and adding the verified data to the database (0010 and 0083) for accepting information.

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because Srivastava would have given Ng a validation method to check information for acceptance. Ng specifies this need in col. 5 line 28-33 wherein data of a certain type or value can be accepted. Thus system integrity would be further ensured in Ng's invention from the teachings of Srivastava.

Ng fails to expressly teach designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table.

Srivastava however, teaches designating a query interval and upon the occurrence of a query interval, comparing the database to the hash table (0068-0069) for specifying when to perform an update check.

In the same field of endeavor, (i.e. data processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the

teachings of the cited references because Srivastava would have provided Ng's system with ensuring system integrity. Further, Srivastava's teaching would have Given Ng a query interval for checking updates for the benefit of efficiently determining when a data source has been modified (as needed in Ng at col. 3 line 35-39 and53-56).

Claims 30-31. (Cancelled).

With respect to claim 33, Ng teaches the first program product of claim 29 wherein the second program product further comprises: instructions for deleting the hashtable and saving the database as a new hashtable (col. 8 line 42-58).

With respect to claim 34, Ng teaches the first program product of claim 29 wherein the second program product further comprises: instructions for storing the new XML Schema in a web server's virtual root (col. 4 line 53-col. 5 line 5 and figure 1).

With respect to claim 35, Ng teaches the first program product of claim 30 wherein a limited number of tables from the database are copied to the hashtable (col. 6 line 1-28); and

wherein upon the occurrence of a query interval, the database tables are compared to the tables in the hashtable (col. 8 line 10-28).

With respect to claim 36, Ng teaches the first program product of claim 30 wherein a database metadata is copied to the hashtable (col. 5 line 60-67); and

wherein upon the occurrence of a query interval, the database metadata is compared to the metadata in the hashtable (col. 8 line 10-28).

Response to Arguments

Applicant's arguments submitted 12/20/2006 with respect to claims 1, 3-11, 13-20, 22-29, and 32-38 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Patent Examiner AU 2167
3/21/2007

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